

IN THE CLAIMS

1. (currently amended) A modular receptacle jack comprising:

a housing comprising a jack interface and an exterior surface;~~and~~

a shield extending over at least a portion of said exterior surface, said shield comprising an interior face~~and~~, an exterior face and signal conductors extending therebetween; and

a plurality of magnetic components coupled to one of said interior face and said exterior face for suppressing EMI/RFI in incoming and outgoing signals transmitted through the signal conductors.
2. (original) A modular receptacle jack in accordance with claim 1 wherein said receptacle jack is an RJ-45 jack.
3. (original) A modular receptacle jack in accordance with claim 1 wherein at least some of said magnetic components comprise transformer elements.
4. (original) A modular receptacle jack in accordance with claim 1 wherein at least some of said magnetic components comprise capacitors.
5. (original) A modular receptacle jack in accordance with claim 1 wherein said shield comprises a printed circuit board.
6. (original) A modular receptacle jack in accordance with claim 1 wherein said shield comprises a printed circuit board, said printed circuit board comprising a ground plane.
7. (original) A modular receptacle jack in accordance with claim 1 further comprising a conductive shell surrounding at least a portion of said jack, said shield coupled to said conductive shell.

8. (currently amended) A modular receptacle jack, comprising:

a housing comprising a jack receptacle and a plurality of signal contacts within said receptacle; and

a shield extending over an outer surface of said housing, said shield comprising a printed circuit board and a plurality of magnetic components coupled to a surface of said printed circuit board for suppressing EMI transmission by said contacts as signals pass from the signal contacts within the housing to an external space and as signals pass from the external space to the signal contacts.

9. (original) A modular receptacle jack in accordance with claim 8 wherein said shield comprises opposite surfaces, and a conductive path extending from one of said surfaces to the other of said surfaces of said printed circuit board.

10. (original) A modular receptacle jack in accordance with claim 8 wherein said contacts are electrically coupled to an inner surface of said printed circuit board.

11. (original) A modular receptacle jack in accordance with claim 8 wherein said contacts are arranged in differential pairs.

12. (original) A modular receptacle jack in accordance with claim 1 wherein said receptacle jack is an RJ-45 jack.

13. (currently amended) A modular receptacle jack comprising:

a housing comprising a jack receptacle and a plurality of signal contacts within said receptacle; and

a shield extending over an outer surface of said housing, said shield comprising a printed circuit board having at least one aperture therethrough for passage of a signal conductor, and at least one magnetic component coupled to a surface of said printed circuit board adjacent said aperture for suppressing EMI transmission therethrough, thereby

providing clean bi-directional communication through said signal contacts while avoiding common impedance coupling of said signal contacts.

14. (original) A modular receptacle jack in accordance with claim 13 wherein said shield comprises opposite surfaces, said signal conductor extending from one of said surfaces to the other of said surfaces of said printed circuit board.

15. (original) A modular receptacle jack in accordance with claim 13 wherein said shield comprises a plurality of apertures and signal conductors corresponding to each of said signal contacts, each of said signal contacts electrically coupled to one of said signal conductors.

16. (original) A modular receptacle jack in accordance with claim 15 further comprising a plurality of magnetic components coupled to a surface of said shield, said magnetic components suppressing EMI/RFI transmission through each of said plurality of signal conductors.

17. (original) A modular receptacle jack in accordance with claim 15 wherein said contacts are arranged in differential pairs.

18. (original) A modular receptacle jack in accordance with claim 15 wherein said receptacle jack is an RJ-45 jack.

19. (original) A modular jack in accordance with claim 15 further comprising a conductive shell surrounding a portion of said housing, said shield coupled to said conductive shell.

20. (original) A modular jack in accordance with claim 15 further comprising a conductive shell surrounding a portion of said housing, said shell having ground fingers electrically contacting said shield.